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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/937,116	03/07/2003	Trevor Redvers Bridle	31180.830018.000	4711

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EXAMINER

BHAT, NINA NMN

ART UNIT PAPER NUMBER

1764

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/937,116

Applicant(s)

BRIDLE ET AL.

Examiner

N. Bhat

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 September 2001 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Applicant's amendments and arguments have been fully and carefully considered. The examiner acknowledges that claims 1-26 are pending. Applicant's amendments with respect to claims 4-17 and 24-26 to correct the improper multiple dependencies is acknowledged. Applicant's argument regarding the Lee reference is persuasive. Accordingly, the anticipatory rejection over Lee has been withdrawn. Applicant's arguments are not persuasive with respect to the claims rejected over the Bridle et al. 5,865,956 patent as will be discussed below:

2. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 13, applicant has used improper Markush language, which should be "...selected from the group consisting of zeolite....and transition metals". Correction is required.

3. Claim 14, is objected to as being dependent upon a rejected base claim.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-12 and 15-26 remain and are rejected under 35 U.S.C. 102(b) as being anticipated by Bridle et al. USP 5,65,956.

Bridle et al. specifically teach a process and an apparatus for performing the process of conversion of sewage sludge by feeding dried sludge through a reactor, heating the

Art Unit: 1764

dried sludge in the reactor in the absence of oxygen for the volatilization of oil producing organic materials therein resulting in gaseous products and sludge residue, transferring the gaseous products from the reactor to a catalytic converter containing the gaseous products from the reactor or the reheated oil and/or noncondensable products if any with catalyst in the catalytic converter in the absence of oxygen; removing the gaseous products from the catalytic converter and condensing and oil/water separating the gaseous products of the catalytic converter. Applicant is specifically directed to look at the drawing of Bridle et al., where the gas stream from reactor 16 or the first reactor is introduced into the condensation system in which the gas stream is condensed then introduced into a second reactor (24). Bridle et al. specifically teach in Column 5, line 30 et seq. "the sludge and is contacted with the revaporized oil, or oil and noncondensable gaseous produces from the condenser (20) at a temperature of 550°C wherein reductive, heterogenic, catalytic gas/solid phase reactions for the generation of clean produces and high quality oil products takes place. This reactor can function exactly like a catalytic converter. Bridle teaches that a catalytic reaction takes place and therefore the function is the same. The reactor temperatures operate in the same range as claimed by applicant. Bridle et al. teach that the sludge is heated in the absence of oxygen at a temperature from 280°C to 600°C, which reads on the same ranges as claimed by applicant and reads on at least 250°C.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 1764

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bridle et al.

Bridle et al. teach the invention substantially as claimed for reasons delineated above. However, Bridle et al. does not teach the specific type of catalyst being a zeolite or catalyst as recited in claim 13.

It would have been obvious from Bridle to chose the type of catalyst which will provide "reductive, heterogenic, catalytic, gas/solid phase reactions for the generation of clean produces and high quality oil product" which has been specifically taught by Bridle et al. and to select a specific type of catalyst to be used in the catalytic conversion or catalytic reaction of the revaporized oil or oil and non-condensable gases to make a useable product or low emission product clean products would have been obvious to one having ordinary skill in the art at the time the invention was made thus rendering applicant's process as a whole obvious.

9. Applicant has argued that the examiner opines that the second reactor in the reference is capable of acting as the catalytic converter and submits that one of sill in

Art Unit: 1764

the art would understand on reading the disclosure that a second reactor is distinctly different structure than a catalytic converter. Applicant arguments are not persuasive as there is no structure in the process or the apparatus claim, which shows a difference in structure, and further it this point is moot when drafting claims to a process. As pointed out above, Bridle teaches in Column 5, line 30 et seq. that the reactor can be used to provide reductive, heterogenic, catalytic gas/solid phase reactions for the generation of clean products", the reactor uses a catalyst which catalytically converts hydrocarbons into useable clean products.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 1764

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to N. Bhat whose telephone number is 571-272-1397. The examiner can normally be reached on Monday-Friday, 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



N. Bhat  
Primary Examiner  
Art Unit 1764